UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,257	08/21/2001	Gary M. Schneider	2512/7	6474

7590 11/10/2004	EXAMINER

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ART UNIT	PAPER NUMBER
3623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/934,257	SCHNEIDER, GARY M.
	Examiner	Art Unit
	Andre Boyce	3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *21 July 2004*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-3,5,6,13,15-18 and 53-64* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) *53,55,58,60 and 62* is/are allowed.

6) ☒ Claim(s) *1-3,5,6,13,15-18,54,56,57,59,61,63 and 64* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   This Final office action is in response to Applicant's amendment filed July 21,

2004. Claims 1, 54-59, and 61-64 have been amended. Claims 1-3, 5, 6, 13, 15-18,

and 53-64 are currently pending.

2.   The previously pending rejections under 35 U.S.C. 112 have been withdrawn.

3.   Applicant's arguments with respect to claim 1 have been considered but are moot

in view of the new grounds of rejection, necessitated by Applicant's amendment.

Claim Rejections - 35 USC § 103

4.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

5.   Claims 1-3, 5, 6, 13, 15-18, 54, 56, 57, 59, 61, 63, and 64 are rejected under 35

U.S.C. 103(a) as being unpatentable over Ell et al (US 2003/0036852), in view of

Remley et al (US 2002/0023052), in further view of McCauley (USPN 6,058,351).

As per claim 1, Ell et al disclose a method for developing a custom farm

management plan for production agriculture pertaining to a farm (management of

crop production, ¶ 0003), comprising the steps of: obtaining input information

pertaining to a farm from a user via an electronic communications network (modem

data transfer, ¶ 0047), the input information defining at least one cropping strategy

(i.e., recommendation equations 124, that define the crop inputs needed for a particular field location, along with product information 126, which contains crop input breakdown for each product, both of which are used by controller application map 132, ¶ 0058-59); analyzing said input information pertaining to said farm and said third-party financial information (imported into mapping software 100 for use with decision support and analysis, ¶ 0092), including display or provision to said user (computer display 100, figure 1).

EII does not explicitly disclose obtaining third-party financial information, comprising at least crop production cost data and crop market price data. Remley et al disclose a guarantor 10 (i.e., third party) supplying inputs to producer 12 (¶ 0036), wherein the guaranteed revenue arrangement includes both a market price (i.e., actual price) and a target price (which inherently includes the cost of crop production). These prices are both determined by the guarantor and the producer (¶ 0047).

Neither EII nor Remley et al explicitly disclose a mathematical model having an objective function for profit maximization bounded by resource constraints consistent with the defined cropping strategy, and maximizing the objective function to generate a corresponding first custom farm management plan based on said input information and said third-party financial information, the objective function indicative of a corresponding economic performance of the farm. McCauley discloses a mathematical model having an objective function to determine the maximum output provided by resource constraint inputs for a farm management zone (column 5, lines

28-35), wherein the input data referred to as vector X represents the field

characteristic data, including yield, fertilizer applied, and moisture content (column 4,

lines 59-64).

. · Ell, Remley et al, and McCauley are concerned with determining effective farm

management zones, therefore it would have been obvious to one having ordinary

skill in the art at the time the invention was made to include obtaining third-party

financial information, comprising at least crop production cost data and crop market

price data, and a mathematical model having an objective function for profit

maximization bounded by resource constraints consistent with the defined cropping

strategy, and maximizing the objective function to generate a corresponding farm

management plan in Ell, as seen in Remley et al, and McCauley, respectively, as an ·

effective way a farmer can optimize crop yield as a function of inputs (McCauley:

column 1, lines 17-21).

As per claim 2, Ell et al disclose the custom farm management plan comprising

at least one of a graphical display and a tabular display of (computer display, figure

1) crop selection (crop selection input, ¶ 0042), and allocation of farm resources for

seasonal or multi-seasonal cropping strategies (yield goals, ¶ 0154).

As per claim 3, Ell et al disclose farm resources comprising one or more of the

following: capital, land, labor, machinery, crop storage, irrigation system capacity

and water rights, and nutrient loading, since the resources are either explicitly stated

in Ell or inherent therein, since these resources are old and well known in the

farming industry.

As per claim 5, Ell et al disclose at least one farm management preference selected from the group of agronomic, operational and physical farm information (agronomic data 118, ¶ 0041).

As per claim 6, Ell et al disclose the third-party financial information is selected from the group of seed prices, fertilizer prices, production contracts, agriculture insurance rates, agriculture marketing information, agriculture consultant's information, agriculture accounting information (third-party business packages including information related to the cost of controller application maps 132, ¶ 0092), and lender's interest rates.

As per claim 13, Ell et al disclose discloses the step of performing an iterative process to determine at least one additional farm management plan (create and run various scenarios, ¶ 0253), wherein said iterative process comprises modifying at least one controllable variable associated with the mathematical model, said at least one controllable variable selected from the group of crop programs, crop rotation patterns (i.e., crop scouting, ¶ 0210), different amounts of production contracts, different types of production contracts, and crop insurance.

As per claim 15, Ell et al disclose said iterative process comprises modifying at least one uncontrollable variable of the mathematical model, said at least one uncontrollable variable selected from the group of crop prices, yields (¶ 0154) and production costs.

As per claim 16, Ell et al disclose said user selecting a desired farm management plan that meets desired goals from the first farm management plan and the at least one additional farm management plan (yield goal lab 280, ¶ 0154).

As per claims 17-18, Ell et al disclose said user compares between the first farm management plan and the at least one additional farm management plan based on gross income, downside risk, opportunity cost risk and resource use (i.e., products and instructions, ¶ 0254), and the desired farm management plan determined from profit maximization (profit analysis calculator 326, ¶ 0174), risk minimization, resource minimization, and environmental stewardship.

As per claims 54, 56, and 57, Ell does not disclose the resource constraints expressed as: $\Sigma\ a_{ij}x_j + a_ix_j +...\ a_{ij}x_n <= b_i; \Sigma\ x_1z_{1n} + x_2z_{2i} +...\ x_nz_{3n} <= b_{land};$ and Σ $x_1+x_2+...\ x_n <= b_{land}$, including various constraint coefficients that represent a measure of resource consumption of resource and where b represents a maximum farm resource limitation for a resource. McCauley discloses maximum element output vector Z (P_i) in position P_i of the management zone (column 5, lines 17-20). The vector includes all the resources of position P_i and is an indication of the maximum number of resources used at that particular position P_i, which includes the acreage of the land (i.e., b_{land}). Both Ell and McCauley are concerned with determining effective farm management zones, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the resource constraints expressed as seen in above in Ell, as seen in McCauley, as

an effective way a farmer can optimize crop yield as a function of inputs (McCauley: column 1, lines 17-21).

Claims 59, 61, 63, and 64 are rejected based upon the rejection of claims 1, 54, 56, and 57, since they are the system claim corresponding to the method claim.

Allowable Subject Matter

6.   Claims 53, 55, 58, 60, and 62 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7.   In the Remarks, Applicant argues that neither Ell nor McCauley disclosing financial data comprising at least crop production cost data and crop market price data. The Examiner submits Remley et al, which discloses a guarantor 10 (i.e., third party) supplying inputs to producer 12 (¶ 0036), wherein the guaranteed revenue arrangement includes both a market price (i.e., actual price) and a target price (which inherently includes the cost of crop production). These prices are both determined by the guarantor and the producer (¶ 0047). As a result, Remley et al indeed disclose third party crop production cost data and crop market price data, that would be used as additional input for the McCauley vector X (see McCauley, column 4, lines 59-64)

Conclusion

8.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre Boyce whose telephone number is (703) 305-1867. The examiner can normally be reached on 9:30-6pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (703) 305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR

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Should you have questions on access to the Private PAIR system, contact the

Electronic Business Center (EBC) at 866-217-9197 (toll-free).

adb

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